

PROCEEDINGS
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TWO NEW MALAYAN MOUSE DEER.*

BY GERRIT S. MILLER, JR.

The series of Mouse Deer in the United States National Museum contains two hitherto undescribed forms, one from the Malay Peninsula, the other from Borneo. They may be named and defined as follows:

Tragulus ravus sp. nov.

Type.—Immature† female (skin and skull) No. 83,506 United States National Museum. Collected in Trong, Lower Siam, September 6, 1896, by Dr. W. L. Abbott.

Characters.—A member of the *kanchil*‡ group resembling *Tragulus pallidus* from Pulo Laut, North Natuna Islands, but larger, the general color less pallid, legs more red, and dark nape stripe less well defined.

Color.—Back and sides ochraceous buff heavily clouded by the blackish hair tips, so that the general effect is a yellowish gray, darker on back and shoulders, where black is distinctly in excess, noticeably lighter on sides. Legs, except for the usual white markings, ochraceous,

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†Uterus contained a full grown fetus. Milk premolars still in place, though very much worn.

‡For use of this name see Stone and Rehn, Proc. Acad. Nat. Sci. Philadelphia, 1902, pp. 128-131. June 4, 1902.

slightly paler than that of Ridgway. A narrow, very indistinct line of this color divides color of sides from the pure white of underparts. In axillary region this line widens to cover sides of chest and send back an irregular and variable streak along middle of belly. Neck ochraceous, less bright than that of legs and much sprinkled with black. Nape-band ill-defined, black, considerably mixed with ochraceous. Throat markings normal, the dark bands like sides of neck and well defined collar slightly paler. Head and face like sides of neck, but ochraceous less bright and black hairs more numerous. Tail white beneath and at tip, dull ochraceous above.

Skull.—The skull shows no characters worthy of note, except that in size it distinctly exceeds that of *Tragulus pallidus*.

Measurements.—External measurements of the type: total length, 535; head and body, 470; tail vertebrae, 65; hind foot, 120; hind foot without hoofs, 108. Weight, 1.9 kg. An adult male from the type locality: total length, 520; head and body, 445; tail vertebrae, 75; hind foot, 112; hind foot without hoofs, 102. Skull of type: greatest length, 94; basal length, 86; basilar length, 82; occipito-nasal length, 89. Skull of adult male: greatest length, 93; basal length, 85; basilar length, 80; occipito-nasal length, 86.

Specimens examined.—Eight, all from the type locality.

Remarks.—This species is readily distinguishable from *Tragulus kanchil* by its pallid coloration, and from *T. pallidus* by its greater size.

***Tragulus borneanus* sp. nov.**

Type.—Adult male (skull only) No. 34,924 United States National Museum. Collected on the Suanlamba River, British North Borneo, by C. F. Adams.

Characters.—In general similar to *Tragulus napu* from Sumatra, but smaller and darker; toothrow longer than in the Sumatran animal.

Color.—Through preparation by means of an acid preservative fluid the skins examined have been altered in color by the removal of most of the red and yellow tints. The color pattern, however, remains unchanged. Underparts as in *Tragulus napu*, the middle of belly with a dusky wash (probably rusty before action of acid) on tips of hairs. Upperparts with decidedly more black than in *T. napu*, the crown and nape stripe nearly clear black, and the black clouding of the back much more noticeable, in this respect suggesting *T. pretiosus*.

Skull and teeth.—The skull is distinctly smaller than that of *Tragulus napu*, so much so that those of immature individuals suggest those of *T. kanchil*. In general form there appear to be no tangible differences. The ascending portion of the premaxillary is broader than in the Sumatran animal, and the horizontal portion less produced forward. Teeth actually as well as relatively larger than in *T. napu*, the difference particularly noticeable in the lower premolars.

Measurements.—External measurements* of adult female from Sapa-gaya River, British North Borneo (No. 19,213 U. S. Nat. Mus.): total length, 600; head and body, 520; tail vertebræ, 80; hind foot, 132 (118).

Cranial measurements of type: greatest length, 107 (115)†; basal length, 102 (108); basilar length, 96.5 (100); occipito-nasal length, 101 (104); zygomatic breadth, 49 (49); least interorbital breadth, 29 (32); mandible 84 (90); maxillary tooththrow, 42 (37.4); mandibular tooththrow, 48 (42.4).

Specimens examined.—Seven skins and skulls, all from British North Borneo.

Remarks.—That the Bornean Napu is distinct from that of Sumatra might readily have been suspected in view of the known tendency of the group to vary. Actual comparison shows that the animals are readily separable.

*From well made skin.

†Measurements in parenthesis are those of an adult male *Tragulus napu* from Tapanuli Bay, northwestern Sumatra.